

## AMENDMENTS TO THE CLAIMS

### **1-21 (Canceled)**

**22 (Currently Amended)** A plating apparatus for plating a workpiece having a surface to be plated using a plating solution, the plating apparatus comprising:

a plating tank for holding the plating solution;

a holder for holding the workpiece and bringing the surface of the workpiece into contact with the plating solution in the plating tank; and

a ring-shaped nozzle pipe ~~for immersing in the plating tank so as to be immersed in the plating solution held in the plating tank, the nozzle pipe being disposed in the plating tank shaped to extend along an outer profile of the workpiece, and having a~~ plurality of injection nozzles for injecting the plating solution toward the surface of the workpiece held by the holder to supply the plating solution into the plating tank.

**23 (Previously Presented)** A plating apparatus according to claim 22,  
wherein the plating solution is injected in streams from the injection nozzles, and  
wherein the streams of the plating solution injected from the injection nozzles intersect each other on or in front of a substantially central area of the surface of the workpiece held by the holder.

**24 (Previously Presented)** A plating apparatus according to claim 22, further comprising

an electroplating apparatus having an anode,

wherein a plating voltage is applied between the anode and the workpiece to perform electroplating on the workpiece.

**25 (Previously Presented)** A plating apparatus according to claim 24, further comprising a plating solution injection nozzle for injecting the plating solution toward the anode to supply the plating solution into the plating tank.

**26 (Previously Presented)** A plating apparatus according to claim 22, further comprising an electroless plating apparatus for bringing an electroless plating solution

into contact with the surface of the workpiece to perform electroless plating on the workpiece.

**27 (Previously Presented)** A plating apparatus according to claim 22, wherein the workpiece is disposed horizontally during plating.

**28 (Previously Presented)** A plating apparatus according to claim 22, wherein the workpiece is disposed vertically during plating.

**Claim 29 (cancelled)** .

**30 (Previously Presented)** A plating apparatus according to claim 22, wherein the nozzle pipe is movable relative to the workpiece held by the holder.

**31 (Currently Amended)** A plating apparatus according to claim 22, wherein the nozzle pipe and/or the ~~plating solution~~ injection nozzles are made of an electrically insulating material.

**32 (Currently Amended)** A plating apparatus for plating a workpiece having a surface to be plated using a plating solution, the plating apparatus comprising:  
a plating tank for holding a plating solution; and  
a stirring mechanism having a stirring vane for immersing in the plating solution in the plating tank and disposing in a position facing the surface of the workpiece, the stirring vane being reciprocally movable parallel to the surface of the workpiece to stir the plating solution and having irregularities on at least one side thereof for generating swirls in the plating solution when the stirring vane is reciprocally moved, the irregularities comprising a succession of triangular or rectangular saw-tooth irregularities; ~~or a number of narrow grooves defined at predetermined intervals.~~

**33 (Previously Presented)** A plating apparatus according to claim 32, wherein a side of the at least one side of the stirring vane having the irregularities provided thereon faces the surface of the workpiece.

**34 (Previously Presented)** A plating apparatus according to claim 32, wherein the stirring mechanism has a plurality of stirring vanes.

**35 (Currently Amended)** A plating apparatus for plating a workpiece having a surface to be plated using a plating solution, the plating apparatus comprising:

a plating tank for holding a plating solution; and

a stirring mechanism having a plurality of stirring vanes having stirring surfaces for immersing in the plating solution in the plating tank and for stirring the plating solution,

wherein the plurality of stirring vanes are actuatable by respective independent drive mechanisms each having an independent drive source, the plurality of stirring vanes having respective edges which are aligned with each other to keep stirring surfaces of the plurality of stirring vanes in alignment with each other.

**36 (Previously Presented)** A plating apparatus according to claim 35, wherein stirring vanes of the plurality of stirring vanes are different in shape from each other.

**37 (Previously Presented)** A plating apparatus according to claim 35, wherein the plurality of stirring vanes are reciprocally movable in directions parallel to the surface of the workpiece.

**38 (Currently Amended)** A plating apparatus for plating a workpiece having a surface to be plated using a plating solution, the plating apparatus comprising:

a plating tank for holding a plating solution; and

a stirring mechanism having a stirring vane for immersing in the plating solution in the plating tank and disposing in a position facing the surface of the workpiece, the stirring vane being mounted on a rotational shaft and reciprocally movable parallel to the surface of the workpiece to stir the plating solution,

wherein the stirring vane is ~~operable to form~~ oriented such that a plane of the stirring vane forms an angle with respect to a plane perpendicular to the surface of the workpiece which is variable, the stirring mechanism being operable to vary the angle of

the plane of the stirring vane with respect to the plane perpendicular to the surface of the workpiece as the stirring vane reciprocally moves and the direction in which the stirring vane moves is changed by angular movement of the rotational shaft about the longitudinal axis of the rotational shaft.

**39 (Previously Presented)** A plating apparatus according to claim 38, wherein the stirring mechanism has a plurality of stirring vanes.

**40 (New)** A plating apparatus according to claim 22, wherein the injection nozzles of the nozzle pipe being spaced apart along an annular axis of the nozzle pipe.